

16 October 2009

Dear Dr. Paul Anderson,

There has been some activity concerning your TLUD gasifier linked to our new pasteurization system. Here's a brief summary:

a) Two TV interviews (with demos) on the popular MoneyTalk programme in English (broadcasted twice Tues 22Sept and Wed 23Sept) and then on the local language news broadcast Fri 25 Sept. We have recorded the sessions but the recording is not that good – yet passable.

b) Created a CD containing 5 of your articles plus one on Paal Wendelbo as well as about 120 one-page flyers on the “Domestic Hot Water System” featuring the TLUD gasifier and our heat-exchanger at Uganda Int'l Trade Fair (6-12 Oct). It could over two hundred people that made inquiries...we lost count. Most of the flyers went and a couple people actually purchased the TLUD CD for \$5.

c) Pasteurization of milk via the TLUD-Heat Exchanger system is now taking place at the factory where we are doing 450lts of milk at a time. We were able to get a pickup full of papyrus reed for about \$45 which, from the look of the pile, is over 400kg. The price included the transport charge of \$20. The results, both in economic and in technical terms, is proving very attractive.



Explanations on the TLUD gasifier and its benefits are shared



It's a pity that the Uganda National Centre for Science & Technology rejected our joint proposal with CREER (Makerere) and Mbarara Univ of Science & Technology for reasons that we didn't fully understand. However the Private Sector Foundation under their “BUDS” programme mentioned that such innovative technology could receive some funding support. We would like to take our learning into to the area of steam-producing steam where milk could be sterilized (ideal for yoghurt and other cultured dairy products) at around 90deg C, using a low pressure (<1bar).

We also discovered that this TLUD-Heat exchanger combo could be an ideal fit for a zeolite absorption cooling system (we are particularly interested using aluminum silicate as a possibility). The heat-exchanger would have three “layers”, one being the silicate and it would take the required vacuum very nicely.

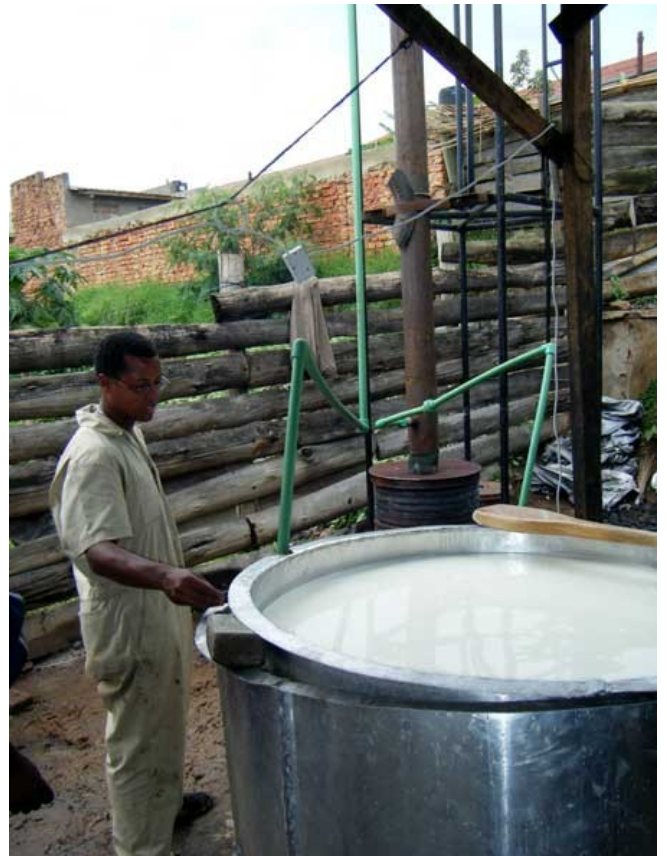
Developing all three areas; hot water, steam and cooling would open huge arena of exciting opportunities where the TLUD gasifier would play an important role.

The 150lt TLUD gasifier now ignited

Returning to the milk pasteurization system, Charles is in process with the final report. There are a number of interesting observations as well as a reasoned attempt to formulate a dimensionless “coupling” number that points towards the ideal relationship between the TLUD capacity and that of the pipe heat-exchanger. Equipped with these insights, we are planning a 150kw plant consisting of 5 of these heat-exchanger units to provide the heating for pasteurization and hot water of our new factory. When complete, it should be an attractive model for future mini-dairies in Uganda, possibly for many “Third World” countries.

Sincerest regards,

Eng. John Anglin
Managing Director
Paramount Dairies Ltd



TLUD Gasifier in place and pasteurization is started



Pasteurization of 450Lts Milk Complete after 1.5hrs